

ROMADAN, I.A.

Alkylation of naphthalene by isoalcohols in the presence of BF_3 .
Zhur.ob.khim. 27 no.7:1939-1941 J1 '57. (MIRA 10:10)

1.Latviyskiy gosudarstvennyy universitet.
(Naphthalene) (Alkylation)

ROMADAN, I.A.; RENDEL', T.I.

Alkylation of diphenyl by alcohols in presence of BF_3 . Zhur.ob.
khim. 26 no.1:202-208 Ja '56. (MLRA 9:5)

1. Latviyskiy gosudarstvennyy universitet.
(Alkylation) (Biphenyl)

SLAVUTSKIY, Aleksandr Kel'manovich, kand. tekhn. nauk, dots.;
YELENOVICH, Aleksey Savel'yevich, kand. tekhn. nauk,
dots.; KURDENKOV, Boris Ivanovich, inzh.; ROMADANOV,
Georgiy Afanas'yevich, kand. tekhn. nauk; Primali
uchastiye: BRYKALOV, I.I., inzh.; MASHIN, K.P., inzh.;
SOROKIN, I.G., inzh.; SHCHERBAKOV, Ye.I., inzh.;
IL'INA, L.N., red.

[Road toppings made of local materials] Dorozhnye odeshdy
iz mestnykh materialov. Moskva, Transport, 1965. 270 p.
(MIRA 18:7)

POKHIL, P. F.; ROMADANOVA, L. D.

"The investigation of the combustion surface structure of model solid-fuel mixtures."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Chemical Physics, AS USSR.

ZORIN, Yevgeniy Timofeyevich; TINYAKOV, Yuriy Mikhaylovich;
ROMADIN, A.G., red.; LIFEROVA, A.I., red.izd-va; FOMICHEV,
P.M., tekhn. red.

[Assembly, operation and repair of bakery equipment] Montazh,
ekspluatatsiia i remont khlebopekarnogo oborudovaniia, Mo-
skva, Izd-vo Tsentrosoiuza, 1963. 251 p. (MIRA 16:12)
(Bakeries--Equipment and supplies)

ROMADIN, G.M., inzh.

Effect of the torque vibrations on the performance of the
gearing and other elements of the hydraulic transmission.
Trudy TSNII MPS no.254:73-93 '63. (MIRA 16:6)

(Diesel locomotives--Hydraulic drive)

MASHNEV, M.M.; KRASKOVSKIY, Ye.Ya.; LEBEDEV, P.A.; ROMADIN, I.S.;
VLADIMIROV, V.M., red.; FUFAYEVA, G.I., red.izd-va;
BARANOV, Yu.V., tekhn. red.

[Theory of mechanisms and machines and machine parts] Teo-
riia mekhanizmov i mashin i detali mashin. Vladimir, Rosvuz-
izdat, 1963. 446 p. (MIRA 16:11)

(Machinery--Design and construction)
(Mechanisms--Design and construction)

ROMADIN, K.P.

Electric transfer in solid metal solutions. Issl. po zharopr. splav.
3:292-295 '58. (MIRA 11:11)

(Solutions, Solid) (Electric conductivity)
(Ions--Migration and velocity)

LEYKIN, Abram Yefimovich; POROTSKIY, Efroim Solomonovich; RODIN,
Boris Iosifovich; SAMOKHOTSKIY, A.I., inzh., retsenzent;
ZOL'NIKOVA, N.K., inzh., retsenzent; ROMADIN, K.P.,
kand. tekhn. nauk, red.

[Aircraft materials] Aviatsionnoe materialovedenie. Mo-
skva, Mashinostroenie, 1964. 458 p. (MIRA 17:12)

PHASE I BOOK EXPLOITATION

SOV/6233

Vul'f, Boris Konstantinovich, and Konstantin Platonovich Romadin
Aviatsionnoye metallovedeniye (Aircraft Metal Science). 2d ed.,
rev. and enl. Moscow, Oborongiz, 1962. 503 p. Errata slip
inserted. 10,000 copies printed.

Ed. (title page): I. I. Kornilov, Professor; Reviewer: G. N.
Dubinin, Candidate of Technical Sciences; Ed. of Publishing
House: S. I. Vinogradskaya; Tech. Ed.: N. A. Pukhlikova;
Managing Ed.: S. D. Krasil'nikov, Engineer.

PURPOSE: This book is intended for students of higher schools of
aircraft engineering; it will also be helpful to engineers, per-
sonnel of scientific research institutes and industrial aircraft
laboratories, etc.

COVERAGE: The book deals with new standard and prospective air-
craft metals and alloys, modern research methods, the theory
of dislocations, and data on the influence of radiation on the

Card 1/2

Aircraft Metal Science

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structure and properties of materials. Data on the composition and properties of aircraft steels (carbon, alloy, heat-resistant, stainless, etc.) and nonferrous alloys (aluminum, magnesium, titanium, etc.) are given. The theory of metal alloys, phase transformations in heat treatment, and corrosion of metals, as well as the science of strength of materials and plastic deformation, are discussed in detail. No personalities are mentioned. There are 25 Soviet references.

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SECTION I. THEORY OF METAL ALLOYS	
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1. Crystal structure of metals and alloys	11
Card 2/2	

ACC NR: AT7004465

SOURCE CODE: UR/2834/66/051/001/0078/0084

AUTHORS: Borisov, A. A.; Nifontov, B. I.; Romadin, N. M.

ORG: nono

TITLE: Computing the stresses in pillars between rooms in mines

SOURCE: Leningrad. Gornyy institut. Zapiski, v. 51, no. 1, 1966, 78-84

TOPIC TAGS: mining engineering, stress distribution, underground facility

ABSTRACT: Present methods of computing characteristics and requirements of pillars between rooms in mines and other underground workings involve two-dimensional solutions, not three-dimensional, as the latter introduce distortions and can be used only in restricted circumstances. None of the two-dimensional solutions can determine either the value or the nature of stress distribution in pillars. Actual solutions of the three-dimensional problem have been approached only in recent years. The authors review the basic contributions of A. S. Kalmanok, Ye. S. Kononenko, and M. M. Filonenko-Borodich, and, starting from these, they assign first-approximation values to the stress tensors along the three principal coordinate axes. These expressions involve normal and tangential stresses, relations of height, width, and breadth (of the pillar), modulus of elasticity, Poisson's ratio, and compression of the pillar. From these expressions equations are derived, the solutions of which provide a general solution

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UDC: 622.838.53

ACC NR: AT7004465

to the problem, permitting examination of the stress state in pillars having any relations of height, width, and breadth. The results are very satisfactory, comparing well with experimental data and actually observed conditions. Three-dimensional models of optically active material are not adequate to show distribution of stresses along the pillar. Orig. art. has: 5 figures, 1 table, and 6 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 004

Card 2/2

NIFONTOV, B.I., doktor tekhn.nauk; ROMADIN, N.M., gornyy inzh.;
SHISHCHITS, I.Yu., gornyy inzh.

Study of the relation between the net drilling rate and the
depth of boreholes. Gor. zhur. no. 12:52-53 D '61.
(MIRA 15:2)

(Boring)

ROMADAN, P.F., EL'KINSON, P.Z.; LIVSHCHITS, L.A., nauchnyy redaktor;
GLADYSHEVA, S.A., redaktor; GLADKIKH, N.N., tekhnicheskiy redaktor.

[Work practices of the Kuybyshev ceramic materials factory] Opyt raboty
Kuibyshevskogo zavoda stritel'noi keramiki. Moskva, Gos.izd-vo lit-ry
po stroit.materialam, 1956. 36 p. (MIRA 10:4)
(Kuybyshev--Ceramic industries)

SOKOLOVSKIY, R.P.; ROMADAN, P.F.

Ways of utilizing the internal potentialities of an enterprise.
Stek. 1 ker.12 no.9:23-27 S'55. (MLRA 8:12)

1. Kuybyshevskiy zavod stroitel'noy keramiki
(Kuybyshev--Ceramic industries)

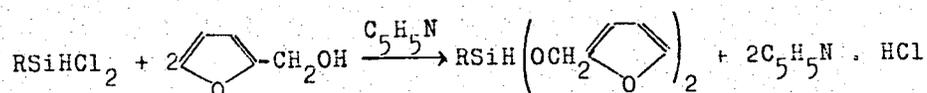
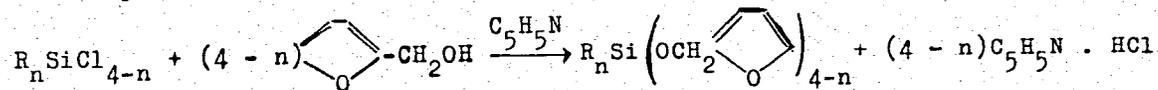
5 3700

S/197/61/000/007/002/002
B117/B101AUTHORS: Lukevits, E., Romadan, Yu., Giller, S.

TITLE: Syntheses in the series of furan-containing organosilicon compounds, synthesis of furfuryloxy silanes

PERIODICAL: Izvestiya Akademii nauk Latvyskoy SSR, no. 7 (168), 1961, 59-61

TEXT: The authors employed three methods for producing furfuryloxy silanes. Most of these compounds were prepared by the interaction of alkylchlorosilanes R_nSiCl_{4-n} and alkylchlorosilanes $RSiHCl_2$ with furfuryl alcohol in the presence of pyridine (method A):

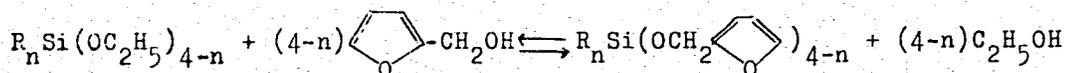


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Syntheses in the series of ...

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The reactions were made in a three-necked flask with mechanical stirrer, dropping funnel, and reflux cooler with calcium chloride tube. In the case of $C_2H_5SiHCl_2$ not only ethyl difurfuryloxy silane but also ethyl trifurfuryloxy silane were isolated. This indicates that the reaction partially proceeds via the Si-H bond. Re-esterification of ethoxy silanes with furfuryl alcohol (method B) is simpler from the experimental point of view:



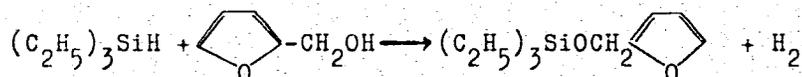
In some cases, however, the reaction proceeds slowly and the separation of the main product is rendered difficult by the impurities of the partially substituted esters. The best results could be obtained when using sodium furfurylate as a catalyst. The reactions were made in a distilling flask with dephlegmator in oil bath. For the production of trialkyl furfuryloxy silanes dehydrocondensation of hydride silanes with alcohols in the presence of metallic sodium (Ref. 11: B. N. Dolgov, N. P. Kharitonov, M. G. Voronkov, ZhOKh, 24, 1178, (1954)) was successfully employed (method B).

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Syntheses in the series of ...

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B117/B101

In this case the highest yields were obtained:



Using these three methods the entire series of methyl furfuryloxy silanes and ethyl furfuryloxy silanes as well as methyl ethyl difurfuryloxy silane, ethyl dipropyl furfuryloxy silane, trifurfuryloxy silane and tetra-furfuryloxy silane were obtained (Table 1). Most of the furfuryloxy silanes are colorless liquids with a characteristic smell and turning yellow on standing. At temperatures of 145°C and higher, the furfuryloxy silanes distilled in the vacuum are yellowish. The furfuryloxy silanes are soluble in ether, ethanol, benzene, and toluene, and insoluble in water. On heating they are gradually polymerized while forming brown non-distillable, highly viscous substances. All frequencies characteristic of the disubstituted furans can be observed in the infrared spectrum (Table 2) There are 2 tables and 17 references: 8 Soviet-bloc and 9 non-Soviet-bloc. The three most important references to English-language publications read as follows: Ref. 15: A. Cross, S. Stevens, T. Watts. J. Appl. Chem., 7, ✓

Card 3/7

Syntheses in the series of ...

S/197/61/000/007/002/002
B117/B101

562 (1957); Ref. 16: N. Wright, M. Hunter. J. Amer. Chem. Soc., 69, 803 (1947); Ref. 17: A. Katritzky, I. Lagovski. J. Chem. Soc., 1959, 657.

ASSOCIATION: Institut organicheskogo sinteza AN Latv. SSR (Institute of Organic Synthesis AS Latviyskaya SSR)

SUBMITTED: May 6, 1961

Table 1: constants of furfuryloxy silanes.

Legend: 1) furfuryloxy silane; 2) synthesis method; 3) boiling temperature, °C; 4) pressure, mm Hg; 5) found; 6) calculated; 7) yield %.

Table 2: infrared absorption spectra of furfuryloxy silanes.

Legend: 1) compound; 2) valence vibrations of the furan ring; 3) pulsation of the ring; 4) deformation vibrations of the C-H bond; 5) planar; 6) extra-planar; 7) references; 8) vibrations of the Si-x bond; 9) deformation vibrations; 10) other frequencies.

Card 4/7

LUKEVITS, E.[Lukevics, E.]; ROMADAN, Yu.[Romadane, J.]; GILLER, S.[Hillers, S.]

Synthesis in the series of furan-containing siliconorganic compounds.
Vestis Latv ak no.7:59-64 '61.

1. Akademiya nauk Latviyskoy SSR, Institut organicheskogo sinteza.

(Furan) (Silicon organic compounds)

LUKEVITS, E.Ya.; ROMADAN, Yu.P.; GILLER, S.A., akademik; VORONKOV, M.G.

Organosilicon compounds of the furan series. Organosilicon
compounds of furylcarbinols and 5-substituted furfuryl alcohols.
Dokl.AN SSSR 145 no.4:806-808 Ag '62. (MIRA 15:7)

1. Institut organicheskogo sinteza AN Latviyskoy SSR. 2. AN Latviyskoy
SSR (for Giller).

(Silicon organic compounds) (Furan) (Alcohols)

5.3300, 5.3400

77863
SOV/79-30-2-14/78

AUTHORS: Romadan, I. A., Romadan, Yu. P.

TITLE: Alkylation of Benzene With Hexyl, Heptyl, and Octyl Alcohols in Presence of Boron Trifluoride

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 420-424 (USSR)

ABSTRACT: This paper is a continuation of a series of articles on alkylation of benzene with various alcohols (Romadan, I. A., Grikrit, E. Ya., Shuykin, N. I., Izvest. Akad. nauk SSSR, Otdel. khim. nauk, 1959; Romadan, I. A., Pelcher, Yu. E., Zhur. obshchey khim., 28, Nr 1 (1959)). In this work the authors studied alkylation of benzene with hexyl, heptyl, octyl, and dodecyl alcohols in presence of boron trifluoride, under various conditions: at atmospheric and higher pressures, with and without solvent and at various ratios of reactants. Alkylation at atmospheric pressure gave rather low yields (57-68%) of alkylated benzenes (a mixture of mono- and dialkylbenzenes was obtained in each case). Therefore, most of the experiments were conducted at high (30 atm maximum) pressure (see loc. cit. for the methods). The alcohol, saturated with boron trifluoride ($2ROH \cdot BF_3$)

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was mixed with benzene in an autoclave and heated at 170-200° for 3-4 hr. Results are shown in Table 2.

(1)	(2)	(3)	(4)	(5)	(6) (%)	(7)		
						(a)	(b)	(c)
C ₆ H ₁₃ OH	1:1	165 (0)	80	26	63	62	38	—
C ₆ H ₁₃ OH	1.5:1	168 (0)	90	24	76	38	58	4
C ₆ H ₁₃ OH	1:2	158 (0)	120	83	58	88	12	—
C ₇ H ₁₅ OH	1:1	167 (0)	80	28	61	61	37	2
C ₇ H ₁₅ OH	1:2	155 (0)	120	81	57	86	14	—
C ₆ H ₁₃ OH	1:2	170 (30)	165	42	74	86	12	2
C ₆ H ₁₃ OH	1:1:1 (CCl ₄)	170 (125)	120	11	90	89	12	—
C ₆ H ₁₃ OH	1:2	200 (35)	200	122	76	72	24	4
C ₇ H ₁₅ OH	1:1:1 (CCl ₄)	170 (110)	120	15	88	90	10	—
C ₇ H ₁₅ OH	1:2	175 (30)	200	136	61	81	16	3
C ₈ H ₁₇ OH	1:1	170 (25)	160	99	62	42	58	—
C ₈ H ₁₇ OH	1:1	200 (30)	160	93	64	40	48	12

Table 2. Yields of alkylbenzenes under various reaction conditions. (1) Starting alcohol; (2) molar ratios alcohol: benzene; (3) boiling point (pressure in mm); (4) quantity of benzene used in reaction (ml); (5) quantity of recovered benzene (ml); (6) yield of alkylbenzenes (%); (7) content of alkylbenzenes in obtained product (%): (a) mono-, (b) di-, (c) poly-.

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Alkylation of Benzene With Hexyl, Heptyl,
and Octyl Alcohols in Presence of
Boron Trifluoride

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SOV/79-30-2-14/78

The use of carbon tetrachloride as solvent (ratio $2ROH \cdot BF_3$: benzene : $CCl_4 = 1 : 1 : 1$) allowed a raising of maximum pressure to 125 atm (at 170°) with a consequent increase in total yield of alkylbenzenes (and an increase in the yield of monoalkylbenzenes). Reaction of dodecyl alcohol with benzene was performed over $BF_3 \cdot H_3PO_4$; the mixture (alcohol : benzene : catalyst = $1.25 : 1 : 0.5$) was heated at 170° and 25-28 atm for 3 hr. Repeated fractionation yielded only unsaturated compounds. Table 1 shows analytical results of the obtained alkylbenzenes. There are 2 tables; and 5 Soviet references.

ASSOCIATION: Riga Polytechnical Institute (Rizhskiy politekhnicheskiy institut)

SUBMITTED: January 24, 1959

Card 3/4

Alkylation of Benzene With Hexyl, Heptyl,
and Octyl Alcohols in Presence of
Boron Trifluoride

77863
SO7/79-30-2-14/78

Table 1. (1) Hydrocarbon; (2) boiling point; n_D^{20} d_4^{20} (3) found
(%); (4) calculated (%); (5) molecular weight; (6) found; (7)
calculated; (8) sec-hexylbenzene; (9) n-dihexylbenzene; (10)
trihexylbenzene; (11) sec-heptylbenzene; (12) n-diheptylbenzene;
(13) sec-octylbenzene; (14) dioctylbenzene; (15) dodecylbenzene;
(16) didodecylbenzene.

(1)	(2)	n_D^{20}	d_4^{20}	(3)		(4)		(5)	
				C	H	C	H	(6)	(7)
8*	201-203°	1.4850	0.8982	88.82	11.19	88.88	11.12	164.7	162
9	255-260	1.4733	0.8855	87.74	12.24	87.80	12.20	211	216
10	294-296	1.4465	0.8589	87.01	12.62	87.27	12.73	—	—
11*	226-227	1.4838	0.8920	88.67	11.45	88.63	11.37	173.2	176
12	264-265	1.4689	0.8785	87.47	12.54	87.51	12.49	268	276
13	248-250	1.4812	0.8904	88.30	11.67	88.39	11.61	191.7	191
14	285-289	1.4651	0.8726	87.21	12.73	87.34	12.66	—	—
15	233-234	1.4674	0.8719	—	—	—	—	—	—
16	266-270	1.4502	0.8761	—	—	—	—	—	—

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* CCl₄ used as solvent

VANAG, G.Ya.; STANKEVICH, E.Yu.; ROMADAN, Yu.P.

Improvement of the method for producing hexenal. Med.prom. 13
no.9:27-28 S '59. (MIRA 13:1)

1. Institut organicheskogo sinteza Akademii nauk Latvyskoy SSR.
(HEXOBARBITAL)

Romadanov, I.

Distr: 4E4J/4E3d/4E2c(j) 7

Alkylation of naphthalene with normal alcohols in the presence of boron trifluoride. I. Romadanov (Latvian State Univ., Riga). *Zhur. Obshchei Khim.* 27, 1833-5 (1957).
 n-ROH were treated with BF_3 to yields compds. of $2ROH \cdot BF_3$, which (1.5 moles) were added at 165° to 1 mole $C_{10}H_8$ with 70-85% recovery of eliminated BF_3 in abs. EtOH in a suitable trap. After heating 4-6 hrs. the reaction mixts. were treated with H_2O and steam-distd. to removal C_6H_6 , the reaction products being purified then by fractionation and distn. from Na. PrOH gave a mixt. of 1- and 2- $C_{10}H_7Pr$; BuOH gave 1- and 2- $C_{10}H_7Bu$; AmOH gave 1- and 2- $C_{10}H_7Am$; C_4H_9OH gave mainly 1- $C_{10}H_7C_4H_9$ in the 60% yield of monoalkylate. The following products were identified individually: 1- $C_{10}H_7Pr$, b_p 87.3°, b. 273° , n_D^{20} 1.5019, d_4^{20} 0.9903; f.p. -15° , 42%; 2-isomer, b_p 82.2°, b. 274.7° , 1.5874, 0.9773, f.p. -4° , 40%; 1,4- $C_{10}H_6Pr_2$, b. 282° , b_p 102.5°, 1.5723, 0.9501, f.p. $-$, 18%; 1- $C_{10}H_7Bu$, b. 289° , b_p 84.5°, 1.5809, 0.9773, f.p. -24° , 44%; 2-isomer, b. 292° , b_p 87.3°, 1.5778, 0.9651, f.p. -6° , 35%; 1,4- $C_{10}H_6Bu_2$, b. 321° , b_p 107°, 1.5557, 0.9419, f.p. -20° , 21%; 1- $C_{10}H_7Am$, b. 304° , b_p 87.1°, 1.5731, 0.9608; 2-isomer, b. 308° , b_p 99.9°, 1.5704, 0.9571; 1- $C_{10}H_7C_4H_9$, b. 320° , b_p 104.7°, 1.5860, 0.9576, f.p. -21° , 42%; 2-isomer, b. 323° , b_p 108.6°, 1.5622, 0.9491, f.p. -7° , 18%; 1,4- $C_{10}H_6(C_4H_9)_2$, b. 347° , b_p 165°, 1.5391, 0.9207, f.p. -27° , 40%.

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G. M. Kosolapoff

Romadane, I.

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Alkylation of naphthalene with iso alcohols in the presence of boron trifluoride: I. Romadane (Latvian State Univ., Riga). *Zhur. Obshchei Khim.* 27, 1939-41(1957); cf. *C.A.* 52, 4679f. $C_{10}H_8$ was alkylated with iso-PrOH; iso-BuOH; $C_{10}H_8$ was alkylated with iso-PrOH, iso-BuOH, to the

4
4E3d }
4E4j }
4E2c4j }
3

ROMADANE, I

USSR .

Alkylation of naphthalene with isoamyl chloride and isoamyl alcohol in presence of zinc chloride, phosphoric acid, and boron trifluoride. I. Romadane and E. Reutski (Latvian State Univ., Riga). *Zhurnal Khim. Zinatnu Akad. Vsesis* 1954, No. 6 (Whole No. 83), 115-18 (in Russian).
 Naphthalene (I) (3 g.) was treated with 12 g. isoamyl chloride (II) in presence of 6 g. Zn chloride in sealed tube at 180-200°; the product contained 25% β -isoamyl naphthalene (III) and 75% α -isomer (IV), of the 54% total yield. The product from refluxing 10 g. I with 30 g. II and 45 g. H₃PO₄ at 140-50° contained III and IV in 4.5:5.5 ratio, along with the acid isoamyl ester of the H₃PO₄ and some unsatd. substances. Boiling 5 g. I with 14 g. II in a stream of BF₃ yielded 91% of a 1:1 mixt. of III and IV. A. D.

Romadane, I

Alkylation of biphenyl with alcohols in the presence of boron trifluoride. I. Romadane and T. I. Rendel (State Univ., Riga, Latvia). *Zhur. Obshch. Khim.* 26, 202-8; *J. Gen. Chem. U.S.S.R.* 26, 215-20 (1956) (Engl. translation).

Alkylation of Ph₂ with EtOH, PrOH, BuOH, iso-BuOH, iso-AmOH, and C₆H₁₃OH in the presence of BF₃ yields the purest alkyl derivs. free of olefins only when primary alcs. are employed. The alkylation occurs at the instant of decompn. of complexes of ROH with BF₃ at 162-5°. Mono- and to lesser extent dialkyl derivs. are formed. The alkylation products are oils with low solidification temp. BF₃ was generated from a soln. of B₂O₃ in H₂SO₄ by addn. of CaF₂. The alcs. were satd. with BF₃ in 3-5 hrs. and the mixt. treated with Ph₂; heating to 165-70° gave a vigorous reaction, continued by heating 1.5-3 hrs. at this temp. Thus were prepd.: isoamylbiphenyl, b. 150-2° (oxidation gave *p*-biphenylcarboxylic and terephthalic acids); isobutylbiphenyl, b. 282-6°; butylbiphenyl, b. 308-10° (dibutylbiphenyls, b. 324-6°); isopropylbiphenyl, b. 295-8°; propylbiphenyl, b. 299-300°; ethyl- and diethylbiphenyls, b. 281-2° and 304-5°, resp.; hexylbiphenyl, b. 313-15°, b. 148-50° (dihexylbiphenyls, b. 330°). The reaction products were isomer mixts. and solidified generally well under -40°.

G. M. Kosolapoff

chem

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BOMADANE, F.A

✓ Alkylation of biphenyl by alcohols in the presence of phosphoric acid. I. A. Romanovic and V. K. Berzina (Latvian State Univ., Riga). *Zhur. Obshchek Khim.* 25, 282-6; *J. Gen. Chem. (U.S.S.R.)* 25, 265-8 (1955) (Engl. translation).

Heating 1 mole Ph₂ with 3-3.5 moles ROH and up to 4 moles H₃PO₄ 10-20 hrs. to 120-5° yields alkylated biphenyl, if R contains 5 C atoms; if R contains 4 C atoms the reaction proceeds at 90-100°. At higher temps. than those indicated, the Ph₂ is unattacked and dimers and polymers of olefins derived from R are obtained. The reaction mechanism appears to be that of formation of ROPO₂H₂, which cleaves into H₃PO₄ and olefin at a sufficiently high temp. and the olefin is the alkylating agent for Ph₂. With iso-BuOH or iso-AmOH the reaction products contain Me₂C and Me₂EtC groups, indicating isomerization. Tertiary alcs. react in 5-6 hrs., while the secondary alcs. require 10-12 hrs. and normal alcs. need 15-20 hrs. Mainly *p*-monoalkyl derivs. are formed, only 2-6% dialkylbiphenyls being formed. Ph₂ and BuOH gave a monobutylbiphenyl, b. 292-6°, f.p. -43°, whose structure is unknown. iso-BuOH or Me₂COH gave the same product, *p*-Me₂CC₂H₂Ph, m. 52°, b. 282-5°. Me₂EtCOH or Et₂CHOH gave the same product, a monoamylbiphenyl of unknown structure, b. 394-5° (this is a *p*-deriv. as oxidation gave only *p*-C₁₁(CO₂H)₂), but presumably it is *p*-Me₂EtCC₂H₂Ph, d₄ 0.9964, n_D²⁰ 1.5630. Diamylbiphenyl obtained as a by-

product, b. 312-10°, d₄ 0.9993, n_D²⁰ 1.5709; dibutylbiphenyl b. 395-7°, f.p. -30°, d₄ 0.9977, n_D²⁰ 1.6700. The best yield of amylbiphenyl from iso-AmOH was obtained at 120-30°, reaching the max. of 69%; with Me₂EtCOH the yield reached 58% at 110-15°. iso-BuOH gave max. yield of 46% monobutylbiphenyl at 95-100°, while Me₂COH gave 48% yield at 85-90°, and BuOH gave 30% at 100-5°. When 40 g. iso-AmOH and 65 g. H₃PO₄ (concn. unstated) were heated 10 hrs. at 90-5° no layer sepn. occurred; treatment of the cooled soln. with 10-12 ml. H₂O, sepn. of the aq. layer, its diln. with 500 ml. H₂O, neutralization with Ba(OH)₂, sepn. of Ba phosphate ppt., treatment of the filtrate with CO₂, sepn. of BaCO₃, and evapn. of the filtrate gave iso-AmOPO₂Ba, crystals (from EtOH). If the reactants are heated 10 hrs. to 120-5°, 2 layers form, the upper contg. polymers of the olefin, the lower layer containing some iso-AmPO₂H₂; if the mixt. is heated to 130-5°, more olefin polymer is obtained and no alkyl di-H phosphate can be detected in the aq. soln. The polymers of the olefin are identified as the dimer and the trimer of isamylene.

G. M. Kosolapoff

①
221

FINKEL'SHTEYN, V.Ye.; ROMADANOV, I.S.

Using an infrared spectropyrometer in experimental measurement
of the constant C_2 . Izv.tekh. no.9:37-39 S '62. (MIRA 15:11)
(Pyrometers) (Thermometry)

ROMADIN, G.; RASHCHENKO, N., ekonomist

State farms of Uzbekistan do not utilize hidden potentialities.
Fin.SSSR. 20 no.11:38-41 N '59. (MIRA 12:12)

1. Nachal'nik otdela Ministerstva finansov Uzbekskoy SSR
(for Romadin).
(Uzbekistan--State farms)

ROMADAN, I.S., hand. techn. nauk, doctant

Determining the number of pinion teeth taking the optimum
specific pressure into account. Spor. trad. LIIZHT no.201:
176-187 '63. (MIRA 17:12)

Romadina, K.P.

SOV/6233

PHASE I BOOK EXPLOITATION

Vul'f, Boris Konstantinovich, and Konstantin Platonovich Romadin

Aviatsionnoye metallovedeniye (Aircraft Metal Science). 2d ed., rev. and enl. Moscow, Oborongiz, 1962. 503 p. Errata slip inserted. 10,000 copies printed.

Ed. (title page): I. I. Kornilov, Professor; Reviewer: G. N. Dubinin, Candidate of Technical Sciences; Ed. of Publishing House: S. I. Vinogradskaya; Tech. Ed.: N. A. Pukhlikova; Managing Ed.: S. D. Krasil'nikov, Engineer.

PURPOSE: This book is intended for students of higher schools of aircraft engineering; it will also be helpful to engineers, personnel of scientific research institutes and industrial aircraft laboratories, etc.

COVERAGE: The book deals with new standard and prospective aircraft metals and alloys, modern research methods, the theory of dislocations, and data on the influence of radiation on the

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Aircraft Metal Science

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structure and properties of materials. Data on the composition and properties of aircraft steels (carbon, alloy, heat-resistant, stainless, etc.) and nonferrous alloys (aluminum, magnesium, titanium, etc.) are given. The theory of metal alloys, phase transformations in heat treatment, and corrosion of metals, as well as the science of strength of materials and plastic deformation, are discussed in detail. No personalities are mentioned. There are 25 Soviet references.

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SECTION I. THEORY OF METAL ALLOYS

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1. Crystal structure of metals and alloys	11

Card 2/22

SHAPIRO, L.B., POPOV, V.G., dotsent; ROMADIN, N.A.; SMETANOV, A.S.;
BELKIN, V.S.

Treatment and hospitalization of patients with myocardial infarct
complicated by collapse. Sov.med. 26 no.1:18-21 Ja '63.
(MIRA 16:4)

1. Iz fakul'tetskoy terapevticheskoy kliniki (dir. -
deystvitel'nyy chlen AMN SSSR prof. V.N.Vinogradov)
I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.
Sechenova i Stantsii skoroy meditsinskoy pomoshchi Moskvy
(nach. L.B.Shapiro).
(HEART--INFARCTION), (SHOCK)

ROMADIN, Petr Vasil'yevich; BALABAYEV, G., red.

[Origin and development of the fundamental concepts of
dynamics] Voznikovenie i razvitie osnovnykh poniatii di-
namiki. Saransk, Mordovskoe knizhnoe izd-vo, 1963. 102 p.
(MIRA 17:7)

TAKTASHEV, A., prepodavatel'; ROMADIN, V., prepodavatel'; GNATYUK, Ye.,
kand. tekhn. nauk, dotsent; KOLESNIK, P., dotsent

Training of specialists. Avt. transp. 41 no.6:52-54 Je '63.
(MIRA 16:8)

1. Astrakhanskiy avtodorozhnyy tekhnikum (for Taktashev,
Romadin). 2. Zamestitel' dekana transportnogo fakul'teta
Moskovskogo inzhenerno-ekonomicheskogo instituta imeni
Ordzhonikidze (for Kolesnik).

ROMADIN, V. P.

"VTI Investigations in the Field of Super-critical Parameters."

The Commission for High-parameter Steam of the Energeticheskiy institut (Power Institute) imeni G. M. Krzhizhanovskogo AN SSSR held a conference on May 16, 1958 devoted to new types of equipment for block-assembled power stations, operating at critical steam parameters. This paper was read at this conference.

Izv. Akad Nauk SSSR, Otdel Tekh nauk, 1958, No. 7, p. 152

ROMANOV, V. I.

USSR/Engineering
Boilers
Coal

Oct 1947

"Thermal Work of Boiler Units in Burning Pulverized High Ash Lignite Coal," Yu. L. Marshak, V. P. Romadin, S. A. Tager, Candidates in Technical Sciences, Heating Laboratory, 7 pp

"Iz VTI" No 10

An analysis of the thermal work of a boiler unit supplied by a spherical tumbling barrel in burning pulverized high-ash lignite coal, on the basis of experimental data.

IA 29T38

ROMADIN, V. P.

USSR/Fuel - Coal Properties

Apr 52

"Classification of Coals Used in Electric Power Industry," V.P. Romadin, Dr Tech Sci, T.A. Zikeyev, Cand Tech Sci

"Iz v-s Teplotekh Inst" No 4, pp 27-29

Suggests a system for classification of coals in respect to their utilization in power production and attempts to distribute within this system coal deposits exploited by Min of Coal Ind. Discusses coal qual characteristics which det type of equipment for stationary power installations.

216753

ROMANOV, V. F. DR.; VOLKOV, I. I., ENG.

COMBUSTION

Heat economy of schemes with interrupted cycle. Izv. VTI 21 No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952.
Unclassified.

ROMADIN, V. P.

H/5
735.1
.R7

Pyleprigotovleniye (Preparation of Pulverized Coal) Moskva, Gosenergoizdat, 1953.

518 p. Diagr., Tables.

MARSHAK, Yu.L., kandidat tekhnicheskikh nauk; ROMADIN, V.P., doktor tekhnicheskikh nauk.

Outlook for furnaces with liquid ash removal. Elek. sta. 24
no.12:3-8 D '53. (MIRA 6:12)
(Furnaces)

ROMADIN, Vitaliy Petrovich, laureat Stalinskoy premii, doktor tekhnicheskikh nauk; KIPNIS, S.Ye., redaktor; ISLENT'YEVA, P.G., tekhnicheskiy redaktor.

[The use of atomic energy for power] Energeticheskoe ispol'zovanie atomnoi energii. Moskva, Izd-vo "Znanie," 1955. 23 p. (Vsesoyuznoe obshchestvo po rzsprostraneniuiu politicheskikh i nauchnykh znanii, seriia 4, no.7/8). (MIRA 3:5)
(Atomic power)

ROMADIN, Vitalii Petrovich.

[Utilization of atomic energy in power engineering] Energeticheskoe
ispol'zovanie atomnoy energii. Dep. 1 perer.stenogramma publichnykh
lektzii. Moskva, Znanie. 1955. 47 p.(Vsesoiuznoe obshchestvo po ras-
prostraneniuiu politicheskikh i nauchnykh znani. Ser.4 no.7/8)
(Atomic power) (MIRA 9:5)

Name : ROMADIN, V. P.

Remarks : The bibliography of the monograph, "The Use of Atomic Engines in Aviation" by Nesterenko, Sobolev and Sushkov, lists Romadin as the author of "Energeticheskoye Ispol'zovaniye Atomnoy Energii" ("Use of Atomic Energy for Power Generation"), Moskva, 1955.

Source : M: Primeneniye Atomnykh Dvigatelyey v Aviatsii (The Use of Atomic Engines in Aviation), by G. N. Nesterenko, A. I. Sobolev and Yu. N. Sushkov, Moskva, 1957, p. 166

AID P - 1619

Subject : USSR/Electronics and Power Engineering

Card 1/1 Pub. 29 - 1/23

Author : Romadin, V. P., Dr. of Tech. Sci.

Title : Utilization of atomic energy in power engineering

Periodical : Energetik, 1, 1-3, Ja 1955

Abstract : In a simple and popular form the author explains briefly the principles of atomic energy and the utilization of nuclear reactor in a modern electric power plant, a simplified diagram of which is attached. In June 1954, the author tells us, the first atomic industrial electric power plant of 5,000 kw was put into operation in the USSR, and further research and preliminary work for development of an atomic industrial electric power plant of 50,000 to 100,000 kw is under way.

Institution: None

Submitted : No date

AID P - 4088

Subject : USSR/Power Eng.
Card 1/1 Pub. 110-a - 13/14
Author : Romadin, V. P., Dr. Tech. Sci.
Title : Problems of nuclear energy (Materials presented at the
International Conference in Geneva, 8-20 Aug. 1955).
Periodical : Teploenergetika, 12, 53-59, D 1955
Abstract : A report on the Geneva Conference. A description of
some atomic power plant designs as they are planned
in the USA, especially by the General Electric Company.
The atomic power plant in the USSR, already in opera-
tion is described. Eight diagrams. Four English
references, 1955.
Institution : None
Submitted : No date

ROMADIN V.P., doktor tekhnicheskikh nauk.

Problems in nuclear engineering. Teploenergetika 2 no.12:53-59
D '55. (MIRA 9:1)

(Geneva--Nuclear engineering--Congresses)

ROMADIN, V. P. Dr. Tech. Sci. and MARSHAK, Yu L. Master of Science

"Furnaces with a High Slag Collection in Vertical Cyclones," paper presented
at the 5th World Power Conference, Vienna, 1956

In Branch #5

ROMADIN, V. P.

PERIODICAL ABSTRACTS

Sub.: USSR/Engineering

AID 4176 - P

ROMADIN, V. P., M. L. KISEL'GOF, and N. V. SOKOLOV.

OPREDELENIYE MOSHCHNOSTI I PROIZVODITEL'NOSTI SHAROVYKH
BARABANNYKH MEL'NITS (Determining the capacity and output of
drum type coal mills). Teploenergetika, no. 2, P 1956: 56-60.

A theoretical analysis of the performance of coal mills con-
sidering the amount of electric energy required for their opera-
tion, the types of ventilators and separators etc. Tables show
various types of coal and the mill output. A mathematical
analysis for computing the drum mill operation is presented.
Six diagrams.

AID P - 4232

Subject : USSR/Heat and Power Engineering

Card 1/1 Pub. 110 a - 13/15

Authors : Romadin, V. P., N. V. Sokolov, Docs. of Tech. Sci.,
and M. L. Kisel'gof, Kand. Tech. Sci.

Title : Determining the efficiency of fuel-pulverizing mills

Periodical : Teploenergetika, 3, 58-61, Mr 1956

Abstract : The present standards for pulverizing mills are considered unsatisfactory. The authors suggest a new method for the computation of the mills' efficiency and give a detailed mathematical analysis to substantiate their report.

Institutions: All-Union Heat Engineering and Central Boiler and Turbine Institute

Submitted : No date

AUTHOR: Romadin, V.P., Dr.Tech.Sci. SOV/96-58-7-8/22

TITLE: A new unit of thermal energy (0 novoy yedinita teplovoy energii)

PERIODICAL: Teploenergetika, 1958, No.7, pp. 30-33 (USSR)

ABSTRACT: The reasons why the kilocalorie should be replaced by another unit are discussed. The origins of the metric system are reviewed and differences between the international and absolute units are accounted for. The International Conference on the Properties of Steam, held in Philadelphia in 1954, decided to change over from the kilocalorie to the absolute unit, the Joule, and this was confirmed by the London World Conference of 1956. The Conference decided to adopt the conversion factor of $1 \text{ kcal} = 4.1868 \pm 0.00022 \text{ kJ}$. It was decided to adopt as the absolute unit of pressure the bar = 10^6 dynes/cm². Force should be expressed in Newtons. The application of the new units to power station calculations is discussed. The use of the Kilojoule in place of the kilocalorie and the bar in place of kg/cm² is of definite advantage. It ends the duality of units of thermal energy that has developed and leads to better agreement between electrical and thermal measurements on boilers and turbines, and it simplifies notation. Therefore, all educational institutions are recommended to bring the above considerations before their students. Research and design institutes and industry should commence

Card 1/2

A new unit of thermal energy

SOV/96-58-7-8/22

to use the new units in 1958, putting them in brackets after the usual units, whilst the new units should be given preference as from 1959. In 1960 the old units should no longer be given, even in brackets. The Moscow Power Institute and the All-Union Thermotechnical Institute should, in 1958 and 1959, publish unified Soviet tables of the properties of water, steam and various gases, using the new units. There are 3 tables.

ASSOCIATION: Vsesoyuznyy Teplotekhnicheskiy Institut (All-Union Thermotechnical Institute)

1. Heat - Measurement
2. Steam - Properties
3. Water - Properties
4. Gases - Properties

Card 2/2

ROMADIN, V.P., doktor tekhn. nauk, prof.

Analysis of the operation and design of the furnace systems of
large boilers operating on solid fuel. Teploenergetika 10 no.12:
41-52 D '63. (MIRA 17:8)

1. Vsesoyuznyy teplotekhnicheskiy institut.

PHASE I BOOK EXPLOITATION

SOV/3732

Marshak, Yu.L., and V.P. Romadin

Topki VTI s vysokim shlakoulavlivaniyem (VTI [All-Union Heat-Engineering Institute] Furnaces With High-Efficiency Slag Removal) Moscow, Gosenergoizdat, 1958. 95 p. (Series: Iz opyta sovetskoy energetiki) 4,300 copies printed.

Sponsoring Agencies: Gosudarstvennyy trest po organizatsii i ratsionalizatsii rayonnykh elektricheskikh stantsii i setey.

Ed.: N.G. Stratonov, Engineer; Ed. of Publishing House: Ye.I. Radzyukevich; Tech. Ed.: N.I. Borunov.

PURPOSE: This book is intended for engineers concerned with the design and construction of boiler furnaces.

COVERAGE: This is a description of the design, construction, operation and characteristics of boiler furnaces with high-efficiency slag removal designed by VTI (All-Union Heat-Engineering Institute). These furnaces are equipped with cyclone-type precombustion chambers, in which the main part of the fuel is burned and the liquid slag separated, and a

Card 1/4

VTI [All-Union Heat-Engineering Institute] (Cont.) SOV/3732

common gas-cooling chamber. The separate combustion and ash-melting chambers provide for a simpler arrangement of screens in the second chamber and more efficient cooling of gas. Greater flexibility is afforded in controlling the furnace without disturbing the removal of slag. The furnaces are characterized by greater efficiency in removing liquid slag, more effective combustion of coke residues, greater capacity for burning coarse particles and a higher degree of heat absorption in the precombustion and cooling chambers. The following organizations and persons participated in the work of designing, constructing, operating and testing boiler installations with VTI furnaces: Division Chief A.N. Lebedev, Senior Technician T.L. Grishchko, Senior Engineers V.N. Kondakov (Deceased), V.V. Solov'yev and V.Ye. Maslov, and Junior Scientific Workers Yu.F. Kuvayev, and I.O. Volkov from the Furnace Division of the All-Union Heat-Engineering Institute; Unit Chief B.A. Lindkvist, Senior Engineers N.A. Zav'yalov, K.M. Postnikov, and Yu.A. Zorin, head of the Planning and Design Office N.F. Rysakov, and Construction Site Chief K.M. Livinskiy of Uralenergomon-tazh (Ural Trust for the Assembly of Power Installations); Chief Engineer D.V. Shoporov, V.Ya. Iyakh, Boiler Shop Chief F.F. Volkov, Senior Foreman G.F. Popov of the Zakamskaya TETs (Zakamsk Heat and Electric Power Plant); Unit Chief E.M. Livshits, V.M. Biman, Ye.M. Zalkind, Group Engineer Yu. F. Khar'kin, Senior Engineer P.N. Kolabukhov, Engineer N.V. Khor'kov

Cont 2/4

VTI [All-Union Heat-Engineering Institute](Cont.)	SOV/3732
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AVAILABLE: Library of Congress

Card 4/4

JA/edw/mh
7-18-60

ROMADIN, V.P., doktor tekhn. nauk, prof.

Use of international units of measurement in the boiler and
furnace industry. Teploenergetika 10 no.8:88-92 Ag '63.
(MIRA 16:8)

(Boilers)

(Furnaces)

ROMADIN, V.P., doktor tekhn.nauk; TAGER, S.A., kand.tekhn.nauk

Main decisions of the all-Union conference on design principles
and methods for developing large furnace systems. Teploenergetika
8 no.3:89-91 Mr. '61. (MIRA 14:9)

(Furnaces--Congresses)

ROMADIN, V.P., doktor tekhn.nauk

Effective use of solid fuel at large power plants.
Teploenergetika no.4:12-18 Ap '60. (MIRA 13:8)
(Power plants--Fuel consumption)

MARSHAK, Yu.L., kand. tekhn. nauk; ROMADIN, V.P., doktor tekhn. nauk.

Using VTI furnaces with high slag collection. Elek. sta. 30
no.2:2-8 F '59. (MIRA 12:3)

(Furnaces)

MARSHAK, Yu.L.; ROMADIN, V.P.; STRATONOV, N.G., inzh., red.; RADZYUKEVICH,
Ye.I., red. izd-va; BORUNOV, N.I., tekhn. red.

[High-temperature wet-bottom furnaces designed by the All-Union
Heat Engineering Institute] Topki VTI s vysokim shlakoulavlivanem.
Moskva, Gos. energ. izd-vo, 1958. 95 p. (MIRA 12:2)
(Furnaces)

ROMADIN, V.P., doktor tekhn.nauk.

New unit of thermal energy [with summary in English]. Teploenergetika
5 no.7:30-33 J1 '58. (MIRA 11:9)

1.Vsesoyuznyy teplotekhnicheskii institut.
(Heat)

ROMADIN, V. P.

p. 2

SOV/96-58-9-20/21

AUTHOR: Belinskiy, S.Ya. (Candidate of Technical Science)

TITLE: A Conference on New Types of Equipment for Unit-type Power Stations employing Super-critical Steam Conditions (Soveshchaniye po voprosam novykh tipov oborudovaniya dlya blochnykh elektrostantsiy na sverkhkriticheskiye parametry para)

PERIODICAL: Teploenergetika, 1958, Nr 9, pp 92 - 95 (USSR)

ABSTRACT: A Conference on new types of equipment for unit-type power stations operating on super-critical steam conditions was called by the High Temperature Steam Commission of the Power Institute of the Academy of Science of the USSR on 14th-16th May, 1958. It was attended by more than 150 representatives of power equipment manufacturers, design organisation research institutes and of GOSPLAN USSR and RSFSR, the Ministry of Power Stations and the Scientific-Technical Committee of the USSR. Engineer S.I. Molokanov read a report on 'The prospective application of large unit sets with super-critical steam conditions'. An article of similar content by this author is published in this issue of this journal. Candidate of Technical Science

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SOV/96-58-9-20/21

A Conference on New Types of Equipment for Unit-type Power Stations
Employing Super-critical Steam Conditions

M.L. Oyvin, of Teploelektroproyekt, gave a report entitled 'Technical tasks in designing the main equipment for initial steam conditions of 240 at and 580°C'. Candidate of Technical Science V.P. Studenskiy, also of Teploelektroproyekt, dealt with 'The design of the thermal part of a 2400-MW regional power station'. Engineer V.A. Zvyagintsev, of Teploelektroproyekt, gave important information about the design of superposed equipment and 300-MW unit-type sets for steam conditions of 300 at. and 620°C. Doctor of Technical Science V.P. Romadin reported upon 'Investigations of the All-Union Thermo-Technical Institute into super-critical steam conditions and associated problems'. Candidate of Technical Science A.V. Levin gave information about turbines of 300 - 400 MW for steam conditions of 240 at., 580°C and 300 at., 650°C, developed by the Leningrad Metal Works. Candidate of Technical Science M.A. Ploskovitov, of the Central Boiler Turbine Institute, described 'A design for a direct-flow boiler of 710 tons per hour at 315 at. and 655°C'. Candidate of

Card 2/4

SOV/96-58-9-20/21

A Conference on New Types of Equipment for Unit-type Power Stations
Employing Super-critical Steam Conditions

Technical Science K.A. Rakov, of the All-Union Thermo-Technical Institute, spoke on 'Development of the thermo-technical bases of super-high-output boiler sets for super-critical pressure' and Engineer V.M. Biman, of ORGENERGOSTROY, gave a report entitled 'Development of the design of a boiler set for 300 at., 650°C, for a 300-MW unit'. A report by Doctor of Technical Science Ya.M. Rubinshteyn, of the All-Union Thermo-Technical Institute, was entitled 'The selection of method of drive for feed pumps for a power station with an initial pressure of 300 at.'. Doctor of Technical Science A.A. Lomakin, of the Leningrad Metal Works, recounted the design of feed pumps for very large unit sets running at super-critical steam conditions. Doctor of Technical Science L.D. Berman, of the All-Union Thermo-Technical Institute, discussed 'The provision of high-density condensers for steam turbines in unit-type power stations with super-critical conditions'. Candidate of Technical Science A.E. Gel'tman, of the Central Boiler Turbine Institute, reported on 'The

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SOV/96-58-9-20/21

A Conference on New Types of Equipment for Unit-type Power Stations
Employing Super-critical Steam Conditions

selection of parameters and characteristics for power equipment in regional condensing power stations'. The article contains a brief account of each of the above reports. The resolutions of the meeting noted that, despite considerable improvements in recent years, the efficiency of power equipment, particularly auxiliaries, should still be improved. The main lines that should be followed in designing power stations for unit sets of 300 and 600 MW are stated; this comprises a list of some 15 items ranging from methods of fuel drying to the use of welded rotors and cylinders. It was noted that feed pumps take too long to manufacture. Research on metals and the development of equipment for very high steam conditions should be expedited.

1. Steam power plants--USSR

Card 4/4

ROMADIN, V. V.

Effective utilization of highly viscous mazut enriched with water. B. V. Kantorovich, V. M. Ivanov, L. L. Khochimsev, L. S. Rapiovets, and V. V. Romadin. *Khim, i Tekhnol.*

Jul
No. 1, 22-7. -- Dispersed mixts. of mazut and water (16-20%) formed emulsions which were stable on prolonged storage at ambient temps. and at 100°. Effective burning of this fuel was achieved when the coeff. of excess of air was 1.1. Under these conditions the combustion was complete, yielding 13,000,000 kcal./cu.m.hr. As compared with the fuel without water, the flame was more stable owing to intense evapn. and better mixing of the fuel caused by small size emulsion droplets (1-1.5 mm. in diam.) and their microexplosions in the combustion chamber (cf. Blinov, C.A. 49, 12901e).
A. P. Kotloby

POGODIN-ALEKSEYEV, G.I., doktor tekhn.nauk; ROMADIN, Yu.P.; PROSVIROV, E.N.

Obtaining cast alloys of nonmelting components under the action of
Ultrasonic oscillations. Biul.tekh.-ekon.inform.Gos.nauch.-
issl.inst.nauch.i tekhn.inform. 16 no.4:15-18 '63. (MIRA 16:8)
(Powder metallurgy) (Ultrasonic waves--Industrial applications)

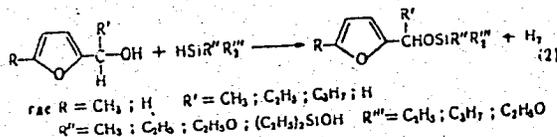
S/020/62/145/004/017/024
B110/B144

AUTHORS: Lukevits, E. Ya., Romadan, Yu. P., Giller, S. A., Academician
AS NatSSR, and Voronkov, M. G.

TITLE: Organosilicon compounds of the furan series. Organosilicon
derivatives of furyl carbinols and 5-substituted furfuryl
alcohols

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 4, 1962, 806 - 808

TEXT: Furfuryl oxysilanes were produced: (1) by reaction of trialkyl
chlorosilanes with furyl alkyl and furyl aryl carbinols, (2) by reaction
of silanes with furfuryl alcohol, 5-methyl furfuryl alcohol, and furyl
alkyl carbinols



using 10^{-5} moles of H_2PtCl_6 per 1 mole of isopropyl alcohol as catalyst at

Card 1/02

Organosilicon compounds of the ...

S/020/62/145/004/017/024
B110/B144

80 - 100°C. Their composition and properties are indicated (Table).
5-nitro-furfuryl oxytrimethyl silane was obtained from ethereal solutions
of 5-nitro-furfuryl alcohol, pyridine, and trimethyl chlorosilane.
Silane reacts with H_2PtCl_6 in isopropyl alcohol to give furfuryl oxysilane. ✓
Dioxane containing 0.05 moles of H_2O hydrolyzes triethyl silane in the
presence of H_2PtCl_6 to give triethyl silanol. Triethyl silane reacting
with triethyl silanol in the presence of H_2PtCl_6 yields small amounts of
hexaethyl disiloxane by anhydrocondensation. There is 1 table.

ASSOCIATION: Institut organicheskogo sinteza Akademii nauk LatvSSR
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LatvSSR)

SUBMITTED: March 12, 1962

Table. Furfuryl oxysilanes ($R'-\text{C}_4\text{H}_3\text{O}-R'$). Legend: (1) mode of production,
(2) boiling point, °C, (3) pressure, mm Hg.

Card 2/02

L 31180-66 EWT(m)/EWP(t) IJP(c) JD

ACC NR: AP6007113

SOURCE CODE: UR/0129/66/000/002/0046/0048

AUTHOR: Romadın, Yu. P.; Prosvirov, E. N.; Pogodin-Alekseyev, G. I.

26
B

ORG: none

TITLE: Structure and properties of aluminum-silicon carbide alloy

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1966, 46-48

TOPIC TAGS: aluminum alloy, silicon carbide containing alloy, dispersion strengthened alloy, alloy structure, alloy property

ABSTRACT: The effect of the content and degree of dispersion of initial components on the mechanical and physicochemical properties of aluminum-silicon carbide alloys has been investigated. Alloy specimens were prepared from 99.99%-pure aluminum and contained 2.5, 5, 7.5, 10, 15, 20, or 30% silicon carbide with a particle size of 14, 28, 60, 100, or 160 μ . It was found that increasing the silicon-carbide content from 2.5 to 30% at the same particle size of 100 μ decreased elongation from 5 to 0.5%, reduction of area from 9 to 2%, reduction in upsetting from 50 to 30%, and notch toughness from 4.5 to 0.5 kgm/cm². Brinell hardness increased from 48 to 70 kg/mm². The maximum tensile strength of 12-14 kg/mm² was reached at a particle size of 16 μ and a silicon-carbide content of 3%; with increasing particle size the maximum tensile strength is lower and is reached at a higher content of silicon carbide. Orig. art. has: 3 figures.

SUB CODE: 11/ SUBM DATE: none/ ATD PRESS: 4214

[AZ]

Card 1/A LC

UDC: 621.789.2:669.715'732

2

L 11075-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JT

ACCESSION NR: AP3001015

S/0193/63/000/004/0015/0018

57

AUTHOR: Pogodin-Alekseyev, G. I. (Dr. of technical sciences); Romadin, Yu. P.; Prosvirov, E. N.

TITLE: Producing cast alloys from nonfusible components under the effect of ultrasonic vibration

14

SOURCE: Byul. tekhniko-ekonomicheskoy informatsii, no. 4, 1963, 15-18

TOPIC TAGS: dispersion-strengthened alloy, ultrasound casting

ABSTRACT: The Laboratoriya ul'trazvuka by*vsh. Volgogradskogo sovnarkhoza (Ultrasound Laboratory of the former Volgograd Sovnarkhoz) has experimented with ultrasound as a means of promoting fusion between usually nonfusible components (e.g., molten metals with oxide, carbide, or nitride powders). It was found that ultrasonic vibrations applied to molten metal break down the oxide film on powder particles and facilitate the wetting of powder by metal. Simultaneous stirring of the metal contributes to a uniform distribution of powder particles over the metal volume. The fusion and uniformity of distribution of powder particles depends very much upon the relative quantity, chemical

Card 1/2

L 11075-63

ACCESSION NR: AP3001015

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composition, specific weight and size of powder particles, and upon the temperature of the molten metal. With increasing temperature the surface tension and viscosity of molten metal decrease, but oxide film forms and grows more rapidly and the ultrasonic head begins to disperse rapidly. The method was used in experimental production of various dispersion-strengthened alloys of tin, lead, bismuth, zinc, aluminum, or copper with oxide, carbide, nitride, and other powders. These alloys can be remelted and cast. Alloys containing 10 to 20% powder particles are sufficiently fluid and can be cast into molds of intricate shape. Alloys with higher contents of powder particles are thick flowing and can be cast only by special methods such as pressure casting. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 11Jun63 ENCL: 00

SUB CODE: ML, MA NO REF SOV: 000 OTHER: 000

elm/jur
Card 2/2

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Aleksandrovich, inzh.; KULISH, Viktor Fedorovich. inzh.;
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CA

12

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